WHAT IS CLAIMED IS:

1. A method of tracing process printing fluids, comprising the steps of:

1) providing a printing process wherein one or more process printing fluids are in use; wherein said process printing fluids are selected from the group consisting of Fountain Solutions and Web Release Agents;

2) providing a tracer material, capable of being detected fluorometrically, for each process printing fluid of interest, wherein each tracer material, being added to each process printing fluid of interest, has a detectable fluorescent signal;

3) providing one or more fluorometers capable of detecting the fluorescent signals of each tracer material being used within the process printing fluids of interest;

4) locating said one or more fluorometers in any location within the printing process where it is desired to detect the presence or absence of the process printing fluid of interest, except that the location cannot be selected to measure the process printing fluid on the paper itself;

5) using said one or more fluorometers to detect and measure the fluorescent signal of said tracer materials in one or more locations within the printing process;

6) using the detected and measured fluorescent signals of said tracer materials to determine how much of each of the process printing fluids is present in the selected location in the printing process; and optionally

7) adjusting the operating parameters of said printing process such that the amount of process printing fluid present at the locations of interest is optimized.

2. The method of Claim 1 in which said process printing fluid is a Fountain Solution.

3. The method of Claim 1 in which said process printing fluid is a One-Component Fountain Solution.

4. The method of Claim 1 in which said process printing fluid is a Two-Component Fountain Solution.

5. The method of Claim 1 in which said process printing fluid is a Web-Release Agent.

6. The method of Claim 3 in which said tracer is selected from the group consisting of:

2-anthracenesulfonic acid sodium salt (CAS Registry No. 16106-40-4),

1,5-anthracenedisulfonic acid (CAS Registry No. 61736-91-2) and salts thereof,

2,6-anthracenedisulfonic acid (CAS Registry No. 61736-95-6) and salts thereof,

1,8-anthracenedisulfonic acid (CAS Registry No. 61736-92-3) and salts thereof,

anthra[9,1,2-cde]benzo[rst]pentaphene-5,10-diol, 16,17-dimethoxy-, bis(hydrogen sulfate), disodium salt, aka Anthrasol Green IBA (CAS Registry No. 2538-84-3), aka Solubilized Vat Dye,

bathophenanthrolinedisulfonic acid disodium salt (CAS Registry No. 52746-49-3),

1H-benz[de]isoquinoline-5-sulfonic acid, 6-amino-2,3-dihydro-2-(4-methylphenyl)-1,3-dioxo-, monosodium salt, aka Brilliant Acid Yellow 8G (CAS Registry No. 2391-30-2), aka Lissamine Yellow FF, Acid Yellow 7,

benzo[a]phenoxazin-7-ium, 5,9-diamino-, acetate, aka cresyl violet acetate (CAS Registry No. 10510-54-0),

1-ethylquinaldinium iodide (CAS Registry No. 606-53-3),

Keyfluor White ST (CAS Registry No. 4193-55-9), aka Flu. Bright 28,

benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[bis(2-hydroxyethyl)amino]-6-[(4-sulfophenyl)amino]-1,3,5-triazin-2-yl]amino]-, tetrasodium salt, aka Keyfluor White CN (CAS Registry No. 16470-24-9),

9,9'-biacridinium, 10,10'-dimethyl-, dinitrate, aka Lucigenin (CAS Registry No. 2315-97-1, aka bis-N-methylacridinium nitrate),

1-deoxy-1-(3,4-dihydro-7,8-dimethyl-2,4-dioxobenzo[g]pteridin-10(2H)-yl)-D-ribitol, aka Riboflavin or Vitamin B2 (CAS Registry No. 83-88-5),

2-amino-1-naphthalenesulfonic acid (CAS Registry No. 81-16-3),

5-amino-2-naphthalenesulfonic acid (CAS Registry No. 119-79-9),

7-amino-1,3-naphthalenesulfonic acid, potassium salt (CAS Registry No. 79873-35-1),

5-dimethylamino-1-naphthalenesulfonic acid (CAS Registry No. 4272-77-9),

1-amino-4-naphthalene sulfonic acid (CAS Registry No. 84-86-6),

1-amino-7-naphthalene sulfonic acid (CAS Registry No. 119-28-8),

benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-(4-phenyl-2H-1,2,3-triazol-2-yl)-, dipotassium salt, aka Phorwite BHC 766 (CAS Registry No. 52237-03-3),

benzenesulfonic acid, 5-(2H-naphtho[1,2-d]triazol-2-yl)-2-(2-phenylethenyl)-, sodium salt, aka Pylaklor White S-15A (CAS Registry No. 6416-68-8),

1,3,6,8-pyrenetetrasulfonic acid, tetrasodium salt (CAS Registry No. 59572-10-0),

quinoline (CAS Registry No. 91-22-5),

xanthylium, 9-(2,4-dicarboxyphenyl)-3,6-bis(diethylamino)-, chloride, disodium salt, aka Rhodamine WT (CAS Registry No. 37299-86-8),

phenazinium, 3,7-diamino-2,8-dimethyl-5-phenyl-, chloride, aka Safranine O (CAS Registry No. 477-73-6),

benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[(2-hydroxypropyl)amino]-6-(phenylamino)-1,3,5-triazin-2-yl]amino]-, disodium salt, aka Sandoz TH-40 (CAS Registry No. 32694-95-4),

xanthylium, 3,6-bis(diethylamino)-9-(2,4-disulfophenyl)-, sodium salt, aka Sulforhodamine B (CAS Registry No. 3520-42-1, aka Acid Red 52),

benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[(aminomethyl)(2-hydroxyethyl)amino]-6-(phenylamino)-1,3,5-triazin-2-yl]amino]-, disodium salt, aka Tinopal 5BM-GX (CAS Registry No. 169762-28-1),

benzenesulfonic acid, 2,2'-([1,1'-biphenyl]-4,4'-diyldi-2,1-ethenediyl)bis-, disodium salt aka Tinopal CBS-X (CAS Registry No. 27344-41-8) and

7-benzothiazolesulfonic acid, 2,2'-(1-triazene-1,3-diyldi-4,1-phenylene)bis[6-methyl-, disodium salt, aka Titan Yellow (CAS Registry No. 1829-00-1, aka Thiazole Yellow G).

7. The method of Claim 6 in which said tracer is selected from the group consisting of

2-anthracenesulfonic acid sodium salt (CAS Registry No. 16106-40-4),

1,5-anthracenedisulfonic acid (CAS Registry No. 61736-91-2) and salts thereof,

2,6-anthracenedisulfonic acid (CAS Registry No. 61736-95-6) and salts thereof,

1,8-anthracenedisulfonic acid (CAS Registry No. 61736-92-3) and salts thereof,

anthra[9,1,2-cde]benzo[rst]pentaphene-5,10-diol, 16,17-dimethoxy-, bis(hydrogen sulfate), disodium salt, aka Anthrasol Green IBA (CAS Registry No. 2538-84-3, aka Solubilized Vat Dye),

bathophenanthrolinedisulfonic acid disodium salt (CAS Registry No. 52746-49-3),

Keyfluor White ST (CAS Registry No. 4193-55-9, aka Flu. Bright 28),

benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[bis(2-hydroxyethyl)amino]-6-[(4-sulfophenyl)amino]-1,3,5-triazin-2-yl]amino]-, tetrasodium salt, aka Keyfluor White CN (CAS Registry No. 16470-24-9),

1-deoxy-1-(3,4-dihydro-7,8-dimethyl-2,4-dioxobenzo[g]pteridin-10(2H)-yl)-D-ribitol, aka Riboflavin or Vitamin B2 (CAS Registry No. 83-88-5),

benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-(4-phenyl-2H-1,2,3-triazol-2-yl)-, dipotassium salt, aka Phorwite BHC 766 (CAS Registry No. 52237-03-3),

benzenesulfonic acid, 5-(2H-naphtho[1,2-d]triazol-2-yl)-2-(2-phenylethenyl)-, sodium salt, aka Pylaklor White S-15A (CAS Registry No. 6416-68-8),

1,3,6,8-pyrenetetrasulfonic acid, tetrasodium salt (CAS Registry No. 59572-10-0),

xanthylium, 9-(2,4-dicarboxyphenyl)-3,6-bis(diethylamino)-, chloride, disodium salt, aka Rhodamine WT (CAS Registry No. 37299-86-8),

phenazinium, 3,7-diamino-2,8-dimethyl-5-phenyl-, chloride, aka Safranine O (CAS Registry No. 477-73-6),

benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[(2-hydroxypropyl)amino]-6-(phenylamino)-1,3,5-triazin-2-yl]amino]-, disodium salt, aka Sandoz TH-40 (CAS Registry No. 32694-95-4),

xanthylium, 3,6-bis(diethylamino)-9-(2,4-disulfophenyl)-, sodium salt, aka Sulforhodamine B (CAS Registry No. 3520-42-1, aka Acid Red 52),

benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[(aminomethyl)(2-hydroxyethyl)amino]-6-(phenylamino)-1,3,5-triazin-2-yl]amino]-, disodium salt, aka Tinopal 5BM-GX (CAS Registry No. 169762-28-1),

benzenesulfonic acid, 2,2'-([1,1'-biphenyl]-4,4'-diyldi-2,1-ethenediyl)bis-, disodium salt aka Tinopal CBS-X (CAS Registry No. 27344-41-8).

8. The method of Claim 7 in which said tracer is selected from the group consisting of

2-anthracenesulfonic acid sodium salt (CAS Registry No. 16106-40-4),

1,5-anthracenedisulfonic acid (CAS Registry No. 61736-91-2) and salts thereof,

2,6-anthracenedisulfonic acid (CAS Registry No. 61736-95-6) and salts thereof,

1,8-anthracenedisulfonic acid (CAS Registry No. 61736-92-3) and salts thereof; and

1,3,6,8-pyrenetetrasulfonic acid, tetrasodium salt (CAS Registry No. 59572-10-0).

9. The method of Claim 1 in which both a One-Component Fountain Solution and a Web Release Agent are traced and the same tracer is used in both printing fluids and that tracer is a mixture of the 1,5- and 1,8-isomer of anthracene disulfonic acid, disodium salt.

10. The method of Claim 1 in which both a One-Component Fountain Solution and a Web Release Agent are traced and a different tracer is used in each of the printing fluids.

11. The method of Claim 1 in which a Two-Component Fountain Solution and a Web Release Agent are traced, and one tracer is used in the first part of the Two-Component Fountain Solution, another tracer is used in the second part of the Two-Component Fountain Solution and a third different tracer is used in the Web Release Agent.

12. The method of Claim 1 in which said process printing fluid is a Web Release Agent.

13. The method of Claim 12 in which said tracer is selected from the group consisting of

1,5-anthracenedisulfonic acid (CAS Registry No. 61736-91-2) and salts thereof, 2,6-anthracenedisulfonic acid (CAS Registry No. 61736-95-6) and salts thereof, 1,8-anthracenedisulfonic acid (CAS Registry No. 61736-92-3) and salts thereof; and mixtures thereof,

sulfonated amino-stilbene fluorescent brighteners and salts thereof, including, but not limited to:

benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[bis(2-hydroxyethyl)amino]-6-[(4-sulfophenyl)amino]-1,3,5-triazin-2-yl]amino]-, tetrasodium salt, aka Sandoz CD (CAS Registry No. 16470-24-9), aka Flu. Bright. 220,

benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[(2-hydroxypropyl)amino]-6-(phenylamino)-1,3,5-triazin-2-yl]amino]-, disodium salt, (CAS Registry No. 32694-95-4), aka Sandoz TH-40,

benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[(aminomethyl)(2-hydroxyethyl)amino]-6-(phenylamino)-1,3,5-triazin-2-yl]amino]-, disodium salt, (CAS Registry No. 169762-28-1), aka Tinopal 5BM-GX, and

sulfonated bi-stilbene fluorescent brighteners and salts thereof, including, but not limited to:

4',4'-bi[stilbene-2,2'''-disulfonate] disodium salt (CAS Registry No. 27344-41-8), aka Tinopal CBS, and

alkylamino-coumarin fluorescent brighteners and salts thereof, including, but not limited to:

4-methyl-7-(diethylamino)-4-methylcoumarin (CAS Registry No. 91-44-1), aka Fluorescent Brightener 52.

14. The method of Claim 1 in which said process printing fluid is a Two-Component Fountain Solution wherein one tracer is used to trace the first part of the Two-Component Fountain Solution and a tracer with a different fluorescent signal is used to trace the second part of the Two-Component Fountain Solution.

15. The method of Claim 14 in which the tracers are as follows:

Component	**Tracer**	**Tracer**	**Tracer**	**Tracer**
First Component	ADSA	PTSA	ADSA	Tinopal CBS-X
Second Component	NDSA	NDSA	Rhodamine WT	Sulforhodamine B

Wherein, "ADSA" is a compound selected from the group consisting of 1,5-anthracenedisulfonic acid (CAS Registry No. 61736-91-2) and salts thereof, 2,6-anthracenedisulfonic acid (CAS Registry No. 61736-95-6) and salts thereof, 1,8-anthracenedisulfonic acid (CAS Registry No. 61736-92-3) and salts thereof; and mixtures thereof,

"PTSA" refers to 1,3,6,8-pyrenetetrasulfonic acid, tetrasodium salt (CAS Registry No. 59572-10-0).

"NDSA" refers to1,5-naphthalenedisulfonic acid, disodium salt (hydrate) (CAS Registry No. 1655-29-4), aka 1,5-NDSA hydrate,

"Tinopal CBS-X" refers to benzenesulfonic acid, 2,2'-([1,1'-biphenyl]-4,4'-diyldi-2,1-ethenediyl)bis-, disodium salt aka Tinopal CBS-X (CAS Registry No. 27344-41-8),

"Rhodamine WT" refers to xanthylium, 9-(2,4-dicarboxyphenyl)-3,6-bis(diethylamino)-, chloride, disodium salt, aka Rhodamine WT (CAS Registry No. 37299-86-8),

"Sulforhodamine B" refers to xanthylium, 3,6-bis(diethylamino)-9-(2,4-disulfophenyl)-, sodium salt, aka Sulforhodamine B (CAS Registry No. 3520-42-1, aka Acid Red 52).